

CLAIMS

What is claimed is:

1. A breathable, biodegradable/compostable laminate material comprising:

 - a. a biodegradable nonwoven material; and
 - b. a filled, biodegradable film.
2. The breathable, biodegradable/compostable laminate material of Claim 1, wherein the biodegradable nonwoven material comprises aliphatic polyesters; polylactides; polyhydroxybutyrate-co-valerates; polycaprolactones; sulfonated polyethylene terephthalates; blends or mixtures thereof.
3. The breathable, biodegradable/compostable laminate material of Claim 1, wherein the biodegradable nonwoven material comprises polybutylene succinate.
4. The breathable, biodegradable/compostable laminate material of Claim 1, wherein the filled, biodegradable film includes aliphatic polyesters; polylactides; polyhydroxybutyrate-co-valerates; polycaprolactones; sulfonated polyethylene terephthalates; blends or mixtures thereof.
5. The breathable, biodegradable/compostable laminate material of Claim 1, wherein the filled, biodegradable film includes a filler selected from clay, silica, alumina, powdered metals, glass microspheres, calcium carbonate, barium sulfate, sodium carbonate, magnesium carbonate, magnesium sulfate, barium carbonate, kaolin, carbon, calcium oxide, magnesium oxide, aluminum hydroxide, titanium dioxide, talc, mica, wollastonite, latex particles, particles of thermoplastic elastomers, pulp powders, wood powders, cellulose derivatives, chitin, chitosan powder, organosilicone powders, polyacrylic acid, magnesium sulfate, sodium sulfite, sodium hydrogen sulfite, sodium sulfate, sodium hydrogen sulfate, sodium phosphate, sodium hydrogen phosphate,

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sodium carbonate, sodium hydrogen carbonate, potassium carbonate, sodium hydroxide, potassium hydroxide, sodium chloride, potassium chloride, or mixtures thereof.

6. The breathable, biodegradable/compostable laminate material of Claim 5, wherein the filler comprises calcium carbonate.

7. The breathable, biodegradable/compostable laminate material of Claim 1, wherein a filler comprises from about 10 to about 70 percent by weight of the filled, biodegradable film.

8. The breathable, biodegradable/compostable laminate material of Claim 7, wherein the filler comprises from about 30 to about 60 percent by weight of the filled, biodegradable film.

9. The breathable, biodegradable/compostable laminate material of Claim 1, wherein the breathable, biodegradable/compostable laminate material has a water vapor transmission rate that is greater than about 1000 g/m²/24hr.

10. The breathable, biodegradable/compostable laminate material of Claim 9, wherein the breathable, biodegradable/compostable laminate material has a water vapor transmission rate that is greater than about 2000 g/m²/24hr.

11. The breathable, biodegradable/compostable laminate material of Claim 10, wherein the breathable, biodegradable/compostable laminate material has a water vapor transmission rate that is greater than about 3000 g/m²/24hr.

12. The breathable, biodegradable/compostable laminate material of Claim 1, further wherein the filled, biodegradable film is stretched.

13. A method of making a breathable, biodegradable/compostable laminate material comprising:

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laminating a biodegradable nonwoven material and a filled, biodegradable film to form the breathable, biodegradable/compostable laminate material.

14. The method of ~~Claim 13~~, wherein the biodegradable nonwoven material comprises aliphatic polyesters; polylactides; polyhydroxybutyrate-co-valerates; polycaprolactones; sulfonated polyethylene terephthalates; blends or mixtures thereof.

15. The method of ~~Claim 13~~, wherein the biodegradable nonwoven material comprises polybutylene succinate.

16. The method of ~~Claim 13~~, wherein the filled, biodegradable film includes aliphatic polyesters; polylactides; polyhydroxybutyrate-co-valerates; polycaprolactones; sulfonated polyethylene terephthalates; blends or mixtures thereof.

17. The method of ~~Claim 13~~, wherein the filled, biodegradable film includes a filler selected from clay, silica, alumina, powdered metals, glass microspheres, calcium carbonate, barium sulfate, sodium carbonate, magnesium carbonate, magnesium sulfate, barium carbonate, kaolin, carbon, calcium oxide, magnesium oxide, aluminum hydroxide, titanium dioxide, talc, mica, wollastonite, latex particles, particles of thermoplastic elastomers, pulp powders, wood powders, cellulose derivatives, chitin, chitozan powder, organosilicone powders, polyacrylic acid, magnesium sulfate, sodium sulfite, sodium hydrogen sulfite, sodium sulfate, sodium hydrogen sulfate, sodium phosphate, sodium hydrogen phosphate, sodium carbonate, sodium hydrogen carbonate, potassium carbonate, sodium hydroxide, potassium hydroxide, sodium chloride, potassium chloride, or mixtures thereof.

18. The method of ~~Claim 17~~, wherein the filler comprises calcium carbonate.

19. The method of Claim 13, wherein the filler comprises from about 10 to about 70 percent by weight of the filled, biodegradable film.

20. The method of Claim 19, wherein the filler comprises from about 30 to about 60 percent by weight of the filled, biodegradable film.

21. The method of Claim 13, wherein the breathable, biodegradable/compostable laminate material has a water vapor transmission rate that is greater than about 1000 g/m²/24hr.

22. The method of Claim 21, wherein the breathable, biodegradable/compostable laminate material has a water vapor transmission rate that is greater than about 2000 g/m²/24hr.

23. The method of Claim 22, wherein the breathable, biodegradable/compostable laminate material has a water vapor transmission rate that is greater than about 3000 g/m²/24hr.

24. The method of Claim 13, further comprising the step of stretching the filled, biodegradable film before laminating to the biodegradable nonwoven material.

25. The method of Claim 13, wherein the biodegradable nonwoven material and the filled, biodegradable film are laminated using a thermal bonding process.

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